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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,235	05/30/2006	Kazuhiro Nakadai	62533.00047	8946

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SQUIRE, SANDERS & DEMPSEY L.L.P.  
8000 TOWERS CRESCENT DRIVE  
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VIENNA, VA 22182-6212

EXAMINER
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KAZEMINEZHAD, FARZAD

ART UNIT	PAPER NUMBER
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2626

NOTIFICATION DATE	DELIVERY MODE
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04/15/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPGENERALTYC@SSD.COM  
SWHITNEY@SSD.COM

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/579,235	<b>Applicant(s)</b> NAKADAI ET AL.	
	<b>Examiner</b> FARZAD KAZEMINEZHAD	<b>Art Unit</b> 2626	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 23 March 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: \_\_\_\_\_.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
 12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

4/9/2010

/Talivaldis Ivars Smits/  
 Primary Examiner, Art Unit 2626

Continuation of 11. does NOT place the application in condition for allowance because: A substantial number of the applicant's new arguments are directed toward the amended part of the independent claim 1 and therefore require further search and consideration. Specifically the new claim language alters the scope of the functionality of the acoustic model composition module by specifically requiring it to compose an acoustic model corresponding to a given arbitrary direction, while previously it required the model to just adjust to a given arbitrary sound direction. In the former the acoustic model composition module has to calculate acoustic models corresponding to any arbitrary sound direction from first principles, while in the latter it could simply use acoustic models already calculated and stored for certain fixed positions or directions and use those to interpolate (i.e. adjust) to the arbitrary sound direction. As regards this amendment, the examiner needs to examine the new amended feature to assess its allowability.

The examiner will next address the applicant's other arguments.

On page 12 the first paragraph lines 4-3 above the second paragraph and the second paragraph lines 4-3 above the third paragraph, the applicant argues that Asano (US 2004/0054531) fails to teach the first claim because Asano fails to "localize a sound direction based on the acoustic signals detected" and rather the direction of the sound is estimated from a power difference or phase difference (paragraph 1 last two lines)! The applicant is respectfully cautioned that the power and phase of a sound signal do correspond to its acoustic features and a model based on those does correspond to a model based on acoustic signals; please see Grost et al. (US 2008/0126100), paragraph 0048 lines 9-3 above paragraph 0049 which says: "as known to those skilled in the art, (acoustic) feature vectors can be extracted and can include, for example, vocal pitch, energy profiles (e.g. power), spectral attributes, ....".

Next, the applicant has argued on many paragraphs that basically because "Asano specifically describes that a set of acoustic models for a distance is stored" and is not "configured to store direction-dependent acoustic models that are adjusted to a plurality of directions", as a result Asano fails to teach or suggest the independent claim 1 (page 13, paragraph 1, lines 4-3 of the second paragraph, the second paragraph lines 3-2 above the bottom, page 14 the second and third paragraphs, page 15 the first paragraph, page 16 the first paragraph, page 18 the third paragraph), and on pages 16, 17 and 18 (the first paragraph) goes to great pains in quoting sections and paragraphs of MPEP, before concluding at the line 3 above the page bottom that basically the office action as it was done was "improper and against the current state of the US patent law", without quoting which law was specifically broken here. The examiner will next address this issue. To sum, Asano does teach storing distance dependent acoustic models as conceded by the applicant. Asano further teaches determining the direction of sound as disclosed above. The examiner simply concluded that from the distance dependent acoustic models and the fact that Asano can determine the sound direction, it could also simply use the two information and determine acoustic models at arbitrary directions; e.g. it could obviously try to utilize the stored acoustic models closest to a point at which sound direction is to be determined and combine (e.g. interpolate from the two) and assign the angular parameter corresponding to the sound direction. MPEP section 2141, III (E) regarding examination guidelines for 35 USC 103(a) for "obvious to try" motivates says: a finding that one of ordinary skill in the art could have pursued the known potential solution (such as storing acoustic features corresponding to certain directions using its stored distance dependent acoustic models as well as its ability to determine sound direction) with a reasonable expectation of success (e.g., to enhance the ability of the robots to possess bias in direction as well as distance).

There are also instances of completely false and even contradictory remarks: for example on page 14 the last paragraph the last line and page 15 the first paragraph line 1, the applicant quoting paragraph 0114 of Asano says: "acoustic models of speeches by a sound source are produced while varying (i.e. adjusting) the distance between the microphone and the sound source". Then on the same paragraph (page 15 the first paragraph) lines 5-4 above the second paragraph it says: "In Asano, the acoustic models are selected rather than being composed". Producing an acoustic model by varying the distance clearly corresponds to composing one, and the selection that is discussed in Asano follows the composition of the distance dependent acoustic models.

As regards to dependent claims 2 and 8, on pages 19-21, the applicant instead of addressing their allowable subject matters, has simply argued that the references used for their limitation not shared with the independent claim 1 (e.g., Ito (US 7,076,433)) has failed to teach the limitations above in the independent claims or simply stated they fail to teach certain features without providing any arguments against what was explained in the office action for the said features; i.e., on page 20 the third paragraph, it is contended that "Ito is devoid of any teaching or suggestion of a sound source localization module configured to localize a sound direction" or "store direction dependent acoustic models" or on page 21 the first paragraph it says: "no teaching in Ito teaches or suggests ... features extracted by the feature extractor as character information using acoustic model composed by the acoustic model composition module". For the last two features since Ito was not used, they are therefore moot. As for the first point the applicant does not provide any arguments why Ito's sound separation apparatus extensively discussed on page 13 fourth paragraph fails to teach that limitation. These arguments as well as the conclusion that the dependent claims 3 and 9-12 are allowable by virtue of their dependence on the independent claims are therefore all moot.

As regards to claim 5, the applicant again contends that the reference used for the limitation not shared by its parent claim 2 (Okuno US 7,035,418) fails to teach aspects of the parent claims that are merely referred to as "above-mentioned deficiencies Asano and Ito, with respect to claim 2" (page 22 second paragraph last two lines) without any details. The said argument is therefore moot as it does not address the said claims own allowable subject matter and the way the new reference was used.